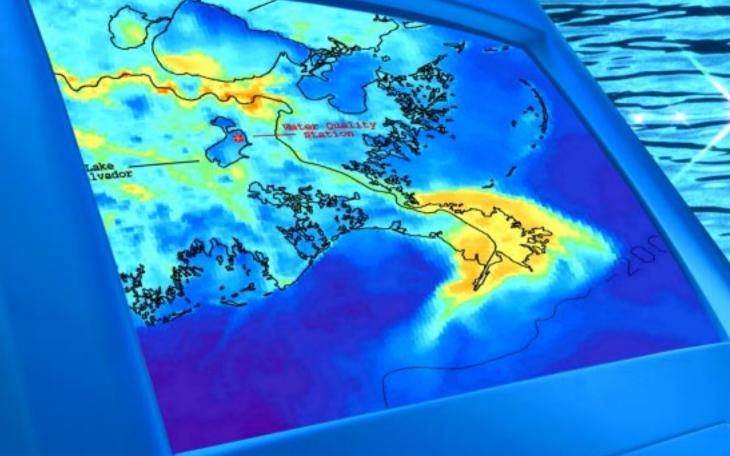
≎EPA OīZĐ

Delivering Timely Water Quality Information to Your Community The Jefferson Parish Louisiana Project



E M P A C T

Environmental Monitoring for Public Access
& Community Tracking

Disclaimer This document has been reviewed by the U. S. Environmental Protection Agency (EPA) and approved for publication. Mention of trade names or commercial products does not constitute endorsement or recommendation of their use.

CONTRIBUTORS

Dr. Dan Petersen of the U.S. Environmental Protection Agency (EPA), National Risk Management Laboratory served as principal author of this handbook, and managed its development with support of Pacific Environmental Services, Inc., an EPA contractor. The authors of this handbook are grateful for the involvement and contributions of individuals involved in this project. The following contributing authors provided valuable assistance for the development of the handbook:

George Arcement, United States Geologic Survey District Office in Baton Rouge, Louisiana

Charles Demas, United States Geologic Survey District Office in Baton Rouge, Louisiana

Dr. Quay Dorche, Louisiana University Marine Observatory Consortium, Baton Rouge, Louisiana

Vickie Duffourc, Contractor for the Jefferson Parish Environmental and Development Control Department

Paul Ensminger, United States Geologic Survey District Office in Baton Rouge, Louisiana

Mark Perlmutter, Vaisala Inc.

Jake Peters, United States Geologic Survey District Office in Atlanta, Georgia

Andrew Puffer, U.S. Environmental Protection Agency Region 4, Gulf of Mexico Program Office

Dr. Chris Swarzenski, United States Geologic Survey District Office in Baton Rouge, Louisiana

Dr. Eugene Turner, Louisiana State University Coastal Ecology Institute, Baton Rouge, Louisiana

Dr. Nan Walker, LSU Coastal Studies Institute and Earth Scan Laboratory, Baton Rouge, Louisiana

Marnie Winter, Director of the Jefferson Parish Environmental and Development Control Department

CONTENTS

1.	INTRODUCTION	1
	1.1 Background	1
	1.2 EMPACT Overview	2
	1.3 Jefferson Parish EMPACT Project	3
	1.4 EMPACT Metropolitan Areas	9
2.	HOW TO USE THIS HANDBOOK	11
3.	WATER QUALITY MONITORING	13
	3.1 Time-Series Water Quality Sampling	15
	3.2 Satellite/Remote Sensing Technology	37
	3.3 Water Quality Field Sampling	39
4.	COLLECTING, TRANSFERRING, AND MANAGING TIME-RELEVANT	
	WATER QUALITY DATA	43
	4.1 System Overview	43
	4.2 Time-Series Water Quality Sampling	45
	4.3 Satellite/Remote Sensing Technology	56
	4.4 Water Quality Field Sampling	63
5.	PRESENTING WATER QUALITY MONITORING DATA	69
	5.1 What is Data Visualization?	69
	5.2 Satellite Acquisition, Processing, and Visualization Software	71
6.	COMMUNICATING TIME-RELEVANT WATER QUALITY INFORMATION	79
	6.1 Developing an Outreach Plan for Time-Relevant Water Quality Reporting	79
	6.2 Elements of the Jefferson Parish Project's Outreach Program	85
	6.3 Resources for Presenting Water Quality Information to the Public	88
AF	PPENDIX A	A-1
	Glossary of Terms & Acronym List	
AF	PPENDIX B	B-1
	List of Authorized SeaWiFS Ground Stations/Users	

APPENDIX C	
Jefferson Parish Brochure	
APPENDIX D	
Example Data from USGS Hydrowatch	
APPENDIX E	
Example Data from Earth Scan Laboratories (Satellite Data - Reflectance)	